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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/519,898

12/22/2004

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112857-485

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04/01/2009

EXAMINER

MARTIN, ANGELA J

ART UNIT

PAPER NUMBER

1795

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/519,898	<b>Applicant(s)</b> MIZUTANI ET AL.	
	<b>Examiner</b> ANGELA J. MARTIN	<b>Art Unit</b> 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 29,31-45 and 47-56 is/are pending in the application.
- 4a) Of the above claim(s) 35-44 and 51-56 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 29,31-34,45 and 47-50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

This Office Action is responsive to the Amendment filed on December 18, 2008. The Applicant amended claims 29, 45; and canceled claims 30 and 46. However, Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, this action is made final.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 29, 31-34, 45, 47-50 are rejected under 35 U.S.C. 102(b) as being anticipated by Kawakami et al., U.S. Pat. No. 6,949,312 B1.

Claims 29-34 drawn to an anode active material; claims 45-50 drawn to a nonaqueous electrolyte secondary battery comprising the anode.

Kawakami et al., teach an anode active material comprising: an alloy material including an element M capable of being alloyed with lithium selected from metal elements and metalloid elements and at least one kind of element R selected from elements with an atomic number of 20 or less, except for hydrogen, lithium and a noble gas (abstract; X in Kawakami et al., equivalent to R in application; A in Kawakami et al., equivalent to M in application), wherein the content of the

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element R ranges from about 1 wt % to about 30 wt % (col. 13, lines 11-13); the alloy material includes a reactive phase with lithium, and a half-width of a diffraction peak obtained by X-ray diffraction analysis of the reactive phase is about 5 degrees or more (col. 10, lines 13-21). An anode active material according to claim 29, wherein as the element R, at least one kind selected from the group consisting of boron, carbon, aluminum, silicon, phosphorus and sulfur is included (abstract; X in Kawakami et al., equivalent to R in application; A in Kawakami et al., equivalent to M in application). An anode active material according to claim 29, wherein as the element M, tin and at least one kind selected from the group consisting of nickel, copper, iron, cobalt, manganese, zinc, indium and silver are included (col. 10, lines 1-5). An anode active material according to claim 29, wherein the specific surface area ranges from about 1.0 m<sup>2</sup>/g to about 70 m<sup>2</sup>/g (col. 10, lines 23-26). An anode active material according to claim 29, wherein the median size is about 50 .mu.m or less (col. 10, lines 18-22). A nonaqueous electrolyte secondary battery, comprising: a cathode; an anode; and a nonaqueous electrolyte, wherein the anode includes an alloy material including an element M capable of being alloyed with lithium selected from metal elements and metalloid elements and at least one kind of element R selected from elements with an atomic number of 20 or less except for hydrogen, lithium and a noble gas (abstract), wherein a content of the element R in the alloy material ranges from about 1 wt % to about 30 wt % (col. 13, lines 11-13), the alloy material includes a reactive phase with lithium, and a half-width of a

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diffraction peak obtained by X-ray diffraction analysis of the reactive phase is about 5 degrees or more (col. 10, lines 13-21). An nonaqueous electrolyte secondary battery according to claim 45, wherein the alloy material includes at least one kind selected from the group consisting of boron, carbon, aluminum, silicon, phosphorus and sulfur (abstract; X in Kawakami et al., equivalent to R in application; A in Kawakami et al., equivalent to M in application). An nonaqueous electrolyte secondary battery according to claim 45, wherein the alloy material includes tin and at least one kind selected from the group consisting of nickel, copper, iron, cobalt, manganese, zinc, indium and silver as the element M (col. 10, lines 1-5). A nonaqueous electrolyte secondary battery according to claim 45, wherein in the alloy material, a specific surface area ranges from about 1.0 m.sup.2/g to about 70 m.sup.2/g (col. 10, lines 23-26). A nonaqueous electrolyte secondary battery according to claim 45, wherein in the alloy material, the median size is about 50 .mu.m or less (col. 10, lines 18-22).

Thus, the claims are anticipated.

### ***Response to Arguments***

3. Applicant's arguments filed 12/18/08 have been fully considered but they are not persuasive. Applicant argues that "the half-width of the diffraction peaks have been limited to about 5 degrees or more"; however, Kawakami teaches a half-width of "most preferably greater than 1.0 degree" (col. 10, lines 6-11) which meets the claim limitation of "about 5 degrees or more". Examples 23 & 24 of Table 11 have a specific teaching in the claimed range (half widths of 10 and 8 degrees).

***Conclusion***

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANGELA J. MARTIN whose telephone number is (571)272-1288. The examiner can normally be reached on Monday-Friday from 10:00 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AJM

Examiner, Art Unit 1795

/PATRICK RYAN/

Supervisory Patent Examiner, Art Unit 1795